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Atty. Docket No.: P70856US0

REMARKS

The Office Action mailed October 9, 2007, has been carefully reviewed and, by this Amendment, claims 1-5 have been canceled and new claims 6-20 have been added. Claims 6-20 are pending in the application. Claims 6 and 12 are independent.

As an initial matter, the present application is a national phase application of international application, PCT/JP2004/003838. Applicants note that the Examiner referred to "claim 6" as having been cancelled. While this is technically correct, the cancellation of claim 6 as originally filed in the PCT application occurred during international prosecution prior to establishment of the International Preliminary Examination Report (IPER). In accordance with nationalization procedure, the claims filed and of record in the present national phase application are those claims examined and reported in the IPER (claims 1-5). Accordingly, the new claims presented herein properly begin with claim 6.

The Examiner objected to claim 5 as containing informalities. Claim 5 has been cancelled herein.

The Examiner rejected claims 1-5 under 35 U.S.C. 101 as being directed to non-statutory subject matter. The Examiner also rejected claims 1, 2, 4 and 5 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement, and rejected

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claims 1-5 under 35 U.S.C. 102(b) as being anticipated by Tokuda et al., "An Online Tutoring System for Language Translation", IEEE, 2001 ("Tokuda").

As claims 1-5 have been cancelled herein, the rejections are technically moot. However, with respect to new claims 6-20, Applicants provide the following remarks.

As set forth in the new claims as well as in the specification as amended herein, "buggy" has been replaced with "error" to better conform with accepted English language meaning and use. With this clarification, it is more easily understood that "error rules" are rules that establish the automated manner by which syntactically incorrect expressions, i.e., "errors", are generated from a syntactically correct expression. Since the "error rules" determine how the syntactically incorrect expressions are produced, they can more broadly be termed "production rules".

New claims 6 and 12 are directed to an automated dialogue learning system for teaching a language that uses a template-template which is, effectively, a "master" template, containing many templates within itself. The dialogue learning system is capable of automatically generating, from a correct expression of a sentence in the template-template, a plurality of incorrect expressions of the sentence on the basis of error rules. The error rules are used to effectively expand the template-

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template by generating the plurality of incorrect expressions of the sentence which are then added to the template-template.

The template-template also includes a plurality of nodes that are marked with label symbols that are associated with extraction rules. The extraction rules are configured to extract a template from the template-template by including, excluding or modifying certain nodes of the template-template based on a value of the label symbols marking those nodes. The extracted template includes at least one correct expression of the sentence and a plurality of incorrect expressions of the sentence. By automatically defining a plurality of common incorrect expressions of the sentence according to the error rules, the computer-implemented dialogue learning systems provide for automatic diagnosis of grammatical errors committed by a learner.

As now claimed, the subject matter of the present invention is clearly statutory, being directed to a computer-implemented system for teaching students a language. By automatically generated incorrect sentences, the system is able to predict or foresee the most commonly encountered errors that students will commit and thereby identifies for them both the error and the correct version or versions of the sentence. This has a very practical application in assisting students in language learning whether in an individual or group setting.

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With respect to the Tokuda paper, the template-template as claimed herein is unlike the template discussed in Tokuda. As already noted, the template-template of the present invention is a "master" template or one from which many templates, both correct and incorrect, can be generated as an expanded template based on error rules. In other words, using the error rules, the present invention can be implemented on a computer to extract/expand the template-template in an automatic manner to include both correct and incorrect templates.

Tokuda, on the other hand, lacks any concept of a "correct" versus an "incorrect" template. Instead, Tokuda has only normal nodes and erroneous nodes, both of which are constructed manually by the language teacher; Tokuda does not provide any teaching as to how the language teacher might construct the *template*. Further, the error rules in Tokuda are rules for grammar analysis; grammar analysis rules are not at all the same as the error rules of the present invention which establish the conditions by which the computer-implementable system is able to automatically expand/extract templates from the template-template.

Also, the errors which appear in various parts of the template structure in Tokuda were built into the template directly by human language experts. The present invention, on the other hand, is directed to teaching the construction of error rules that,

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when applied in a computer-implemented system, will expand the template in an *automatic* and *systematic* manner.

Additionally, Tokuda teaches only how to extract grammar portions for parts of a sentence from grammar trees of the entire sentence; no extra rules exist in the grammar tree itself. Hence, the grammar portions that are extracted represent only a part of the sentence and do not constitute a complete sentence. With the present invention, by contrast, the template nodes are associated with rules that are used to expand the template-template into many templates, *each of which is a complete sentence* (whether a correct sentence or an incorrect sentence). It can be seen, therefore, that a *template* such as that being claimed is a completely different concept from that of a *grammar tree* as taught by Tokuda.

Finally, Tokuda contains parser or grammar symbols which represent the grammatical functions of words in a sentence and are used to generate grammar structures for the sentence. As clarified in the new claims herein, however, symbols in the present invention are labels that are used to indicate restrictions on the co-appearances of two or more words, specifying when one versus the other of these related words should be used in a correct sentence. As examples, the symbol value may specify that the word at a given node should "appear" or "not appear" (claims 8 and 14). The values for another symbol may indicate whether the word at a given node is

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a personal pronoun or a personal pronoun possessive (claims 9 and 15), or may specify an arbitrary number (claims 10 and 16) or that only one such symbol can appear in the extracted template (claims 11 and 17). As such, symbols as provided in the claimed invention do not necessarily represent grammatical functions of words and thus are not comparable to the symbols used in Tokuda.

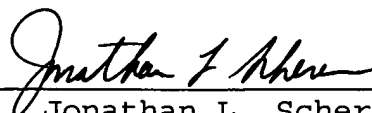
For at least the foregoing reasons, independent claims 6 and 12 are patentable over Tokuda. Claims 7-11 and 13-20 are also in condition for allowance as claims properly dependent on an allowable base claim and for the subject matter contained therein.

With the foregoing amendments and remarks, the application is in condition for allowance.

Should the Examiner have any questions or comments, the Examiner is cordially invited to telephone the undersigned attorney so that the present application can receive an early Notice of Allowance.

Respectfully submitted,

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